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ABSTRACT

A study evaluated the Michigan Test Battery as a placement tool and indicator of student performance at the college level for one continuing education intensive academic English program. Three issues were addressed: whether the test: (1) is being used correctly for program placement and exit; (2) is an accurate indicator of performance for placement purposes; and (3) shows progress in student scores over time. Test scores and initial placement for 53 students were compared with score interpretation guidelines to determine the frequency with which guidelines were followed in placement decisions. In addition, placement test scores were compared with first quarter grades, and scores from four sequential test administrations were compared. Results of the analyses suggest that the program does not use the test correctly in many cases, the test is not an accurate indicator of performance in the level of placement, and the test does not measure student progress accurately. It is recommended that programs using the test for placement of advancement examine their objectives for test administration and their choice of test for the situation. The guidelines for test scoring are appended. (Contains 3 references.) (MSE)

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Making difficult decisions: Can the Michigan Test help?

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Making difficult decisions: Can the Michigan Test help?

Abstract

The purpose of this study was to evaluate the use of the Michigan Test as a placement tool and as an indicator of student performance for one intensive academic English program. Three simple questions were posed: 1) Is the test used correctly?, 2) Is the Michigan Test an adequate placement tool? (Is the test an accurate indicator of performance in the level of placement?), and 3) Does the test show progress in student scores over time? The results of this analysis force us to question the use of the Michigan Test in making placement decisions.

Making difficult decisions: Can the Michigan Test help?

To effectively manage IEPs, administrators must place students in class levels according to their proficiency in at least four language skill areas: speaking, reading, writing, and listening. Placing students accurately is a difficult task. This difficulty is due in part to the increasing number of placement tests available for this task and the lack of published empirical investigations of the validity and reliability of these tests.

The Michigan Test (University of Michigan, 1968) is used for placement and proficiency measurement in English as a Second Language (ESL) programs throughout the United States. The test consists of a listening component (Michigan Test of Aural Comprehension, or MTAC), a grammar and vocabulary component (Michigan Test of English Language Proficiency, or MTELP) and a thirty-minute writing sample (topics for which are developed by individual institutions). The test components are retired sections of the secured Michigan Battery. Except for the writing sample, the test consists of multiple choice questions. The ultimate objective of Michigan Test use is to determine whether a non-native English speaker has adequate proficiency to succeed in studies at the college or university level.

Literature on the Michigan Test suggests that there are many problems associated with its use, from lack of test security to lack of scientifically founded validity and reliability (Jenks, 1987). Jenks (1987) warns that the test is outdated and misused; however, he does note that a strength of the test is the length

of time it has been in use, which has permitted institutions to compile years' worth of data. Such data will be used to test the hypotheses of this study.

In the continuing education Program in ESL (PESL) from which these data were collected, the Michigan Test is used as an initial placement tool and as an exit test at the end of each quarter; however, scores at the end of the semester are not generally used to determine placement in successive levels.

Purpose

The purpose of this study was to evaluate the use of the Michigan Test as a placement tool and as an indicator of student performance for one intensive academic program (the PESL). Three simple questions were posed:

1) Is the test used correctly?
2) Is the Michigan Test an adequate placement tool? (Is the test an accurate indicator of performance in the level of placement?)
3) Does the test show progress in student scores over time?

Methods and Results

Question One - Is the Michigan Test used correctly?

The administration manual of the Michigan Test contains score interpretation guidelines for placement recommendations. Because these guidelines were constructed for student placement in regular university programs, they are not adequate for ESL programs using the test as placement for low and intermediate level students. Therefore, the PESL used these guidelines as a

basis for the development of more extensive placement recommendations (see Appendix for complete score interpretation/placement guidelines). It is assumed that faculty and administrators involved in the placement process follow these guidelines. This assumption will be tested below.

Sample. Data for this analysis were stratified into two levels out of six possible levels in the program. Placement test scores were compiled for twenty-four students initially placed in Level Two (High Beginner) and twenty-nine students with intial placement in Level Four (High Intermediate). The Level Two population consisted of all students placed in Level Two commencing in the Fall quarter of 1988 who remained in the program for at least three quarters. The Level 4 population consisted of all students placed into Level 4 in the Fall and Winter quarters of 1989 and the Winter of 1990. Although different versions of the test were used in different quarters, the score interpretation guidelines remain constant across versions.

Method. Michigan Test scores and inial placement were checked against the score interpretation guidelines to determine the frequency with which the guidelines were followed in placement decisions. In order to be placed correctly according to the guidelines, a Level Two student would have a cumulative test score from 38-47, and a Level Four student would have a cumulative test score from 57-64 (on a one hundred point scale). Figure One shows the results of this comparison, with y

indicating that the guidelines were followed and n indicating that they were not.

Level 2 (n=24)	y= 21/24	87.5%	
	n= 3/24	12.5%	range of scores: 35-48
Level 4 (n=29)	y=17/29	58.6%	
	n=12/29	41.3%	range of scores: 50-72

Figure 1.

In Level Two placement decisions, 12.5% of the decisions did not follow the guidelines. Scores for these 12.5% of the students ranged from three points below the minimum score to one point above the maximum. In Level Four, student placement fell outside of recommended guidelines 41.3% of the time. Students with scores from seven points below the minimum to eight points above the maximum were placed in Level Four.

Discussion. The 12.5% of Level Two students placed out of the recommended level may be acceptable given the standard error of measurement for the test (3.54). However, the 41.3% of Level Four placement decisions which did not follow the guidelines are not as easily explained. The range of difference is significant because the average range of points within one level is 8. Therefore, according to the composite scores for these students, the English proficiency of the students placed in Level Four ranged from Level Three to Level Five.

Within both the "correct" and "incorrect" decisions, according

to the average score (designated here as "cumulative") on the MTELP, MTAC, and writing sample, individual scores vary greatly. Figure Two shows examples of this variation. The number in parentheses is the recommended level for that score.

	MTAC	MTELP	Writing	Cumulative	Actual Placement
Student 1	72 (5)	80 (6)	53 (3)	68 (5)	Level 4
Student 2	66 (5)	78 (6)	57 (4)	67 (5)	Level 4
Student 3	46 (2)	75 (6)	56 (3)	59 (4)	Level 4
Student 4	41 (2)	19 (1)	50 (3)	37 (1)	Level 2
Student 5	33 (1)	56 (3)	43 (2)	44 (2)	Level 2

Figure 2.

In the majority of cases, the placement decision was based most heavily on the writing sample score. For administrative purposes, it is clear that an equitable compromise between scores must be reached. However, at this point there is no evidence to suggest that weighting the writing sample score the most heavily is the most accurate solution.

Question Two - Is the test an accurate indicator of performance?

The assumption here is that there is a strong positive relationship between Michigan Test score and course performance. For example, it is expected that students with higher placement test scores are more successful in class, and those with lower scores are less successful. Performance is operationalized in this instance as grades. If, in fact, the Michigan Test is a useful placement tool for this program and is an accurate predictor of student performance, the correlation between test

scores and grades will be positive and high.

Sample. The same stratified sample was used for this question as was used in Question One. To control for level, two separate correlational analyses were conducted. In addition to individual and cumulative test scores for each student, grades from the first quarter of study (ten weeks) were compiled. Although some students in both levels had been incorrectly placed according to the score interpretation guidelines, all students in the levels were working toward the same course goals. The incorrect placement, however, made it more likely that a high correlation between test scores and grades would be seen because it resulted in a wider range of test scores for students in these levels.

Method. Pearson correlations were calculated for the data in order to see whether a relationship existed between placement test scores and subsequent first quarter grades.

Discussion. Figure Three shows the correlation between individual/cumulative placement test scores and individual/cumulative grade point average for the first quarter of study.

	Level Two			
	MTAC	MTELP	WRITING	CUM.
Speaking/Listening	0.145	-0.264	0.179	-0.015
Reading/Vocab.	-0.163	-0.146	0.366	0.139
Grammar/Writing	-0.302	0.039	0.122	-0.090
Cumulative GPA	-0.024	-0.128	0.265	0.014
	Level Four			
	MTAC	MTELP	WRITING	CUM.

Speaking/Listening	0.187	-0.064	0.222	0.160
Reading/Vocab.	-0.148	0.328	-0.056	0.074
Grammar/Writing	0.063	0.483	0.073	0.343
Cumulative GPA	0.033	0.272	0.096	0.219

Figure 3.

Correlations between the placement test scores and the grades were low, suggesting little or no relationship. However, in Level Four, where over 40% of the students were placed by some method other than following the score interpretation guidelines, the correlations for cumulative test scores and grades were somewhat higher. The highest correlation between cumulative test score and grades was that for the grade in the grammar/writing class.

Question 3 -- Does the test show progress in student scores over time?

It is not possible to test whether the Michigan Test measures student progress accurately. We have no accurate measure of progress with which to compare it. However, it is useful to examine whether the test indicates any student progress; that is, whether student scores progress. For the sake of analysis, it was assumed that

1) The test is an adequate indicator of performance for students as a whole.
2) Students who take the test are motivated to try their best.
3) Performance improves in the program.

If these assumptions are true, then it is expected that student

scores would increase consistently over time. If this is found to be the case, then the Michigan Test may be said to at least measure student progress in some form.

Sample. The sample for this question consisted of forty-two foreign students enrolled in the PESL between the Fall 1988 quarter and the Fall 1989 quarter. These forty-two students compose the entire population of students completing three quarters of study in the program during this period for whom complete data is available. Five students were excluded because of missing data. Figure Four shows the breakdown of students by native country.

Japan	28
United Arab Emirates	3
Lebanon	1
Taiwan	2
Thailand	1
Korea	4
Hong Kong	1
Switzerland	1
Venezuela	1

Figure 4.

Each of these students took the Michigan Test at least four times - once for intial placement and once at the end of each of three successive quarters. Some of the students repeated an MTAC form once (after the third successive quarter). None of the students repeated an MTELP or writing sample.

Method. Scores for the four administrations of the Michigan Test were compiled. Minimums, maximums, and means are provided in Tables 1 - 4. "Progress" by quarter was determined for each student by subtracting test scores from each quarter from test scores from the subsequent administration of the test. Cumulative progress was determined by subtracting the placement test scores from the scores for the fourth administration of the test.

Discussion. An anallysis of mean overall progress suggests that students improved an average of 17.85 points over the four test administrations (equal to three quarters, or 30 weeks of ESL instruction). However, further analysis suggests that these mean values are misleading. Table 1 indicates that 27 out of the 42 students (64.2%) were at or below this mean. Furthermore, student progress varied widely in each quarter. In addition, several incidents of negative gains are documented in the Tables.

Conclusions

Question 1 - Is the test used correctly?

Out of the Level 2 students in the sample, 12.5% were not placed within the level recommended by the guidelines. Within the Level Four sample, this number rose to 41.3%. Student scores on individual tests ranged widely; however, the writing sample score was most likely to affect student placement. From these results, we conclude that, in many cases, the Michigan Test was not used correctly - that is, according to the guidelines for score interpretation.

Question 2 - Is the test an accurate indicator of performance?

Several factors may account for the lack of correlation between test scores and grades. Jenks (1987) suggests that, because the MTELP is based on structuralist principles, it may not measure proficiencies taught by other methods. Jones (1987) claims that the MTAC tests oral grammar rather than auditory discrimination, the latter of which is stressed in the PESL curriculum; therefore, student grades may be based on entirely different performance objectives than the test. The results indicate that there is little or no relationship between placment test scores and first quarter grades. We therefore conclude that the test is not an accurate predictor of student performance as measured by grades.

Question 3 - Does the test show progress in student scores over time?

According to the score interpretation guidelines used in the PESL, an average of 7.6 points is necessary to move from one program level to the next (e.g., from Low Intermediate to High Intermediate). Therefore, from the cumulative placement test score to the final test score after three quarters, students should gain approximately 22.8 points. The students in this sample progressed through the program levels, but most did not achieve an average gain of 22.8 points. In addition to the lack of appropriate progress (as measured by test scores), wide variations and large negative gains in the progress of individual students are evident. These data indicate that the

assumptions made concerning student motivation, performance improvement within the program, and test adequacy are faulty; however, it must be noted that students do not progress within the program unless they improve. This implies that either 1) the students are not motivated when they take the test, or 2) the test is not an adequate indicator of student performance. In either case, it can be inferred that the test does not measure student progress accurately.

Implications

The findings of this study suggest the following:

1) The PESL does not use the Michigan Test correctly in many cases.

The score interpretation guidelines are based on a straight average of the three component test scores. However, PESL faculty and administrators sometimes weighted the writing sample score more heavily that the scores from the other two components. Perhaps it would be useful to calculate the cumulative score in a way other than a straight average. For example, the PESL could conduct multiple regression analyses to determine a more appropriate weighting of the component scores.

2) The Michigan Test in not an accurate indicator of performance in the level of placement.

One possible explanation for this finding, as Jenks (1987) proposed, is that both the content and construct validity of the

test are questionable. Changes in language teaching theory and practice are not reflected in the test. Therefore, students are being evaluated on knowledge which is not part of the PESL curriculum. Alternatively, the test may attempt to measure the correct knowledge base, but it does so inappropriately in light of advances in evaluation techniques since 1968.

3) The Michigan Test does not measure student progress accurately.

Problems in test administration may account for a lack of motivation on the part of the students who take the test. Because the PESL does not use the exit test scores, students may become apathetic about their performance on the exit tests. Therefore, the Program should rethink its use of the exit tests.

If, however, the problem lies with the adequacy of the test as an indicator of student progress, then the content and construct validity issues raised above are relevant for progress as well as performance.

This study suggests that the Program in ESL and other programs using the Michigan Test for placement and/or advancement purposes must examine their objectives for test administration. In addition, they must evaluate whether the Michigan Test is the most appropriate tool to use in meeting these objectives. Of course, this study is not without its limitations; it was focussed on a relatively small sample within one ESL program. Further research is necessary to assess the value of the Michigan Test to ESL programs.

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GUIDELINES FOR SCORING OF MICHIGAN TEST ESSAY

91-100 — University Level: Native command of English
Excellent organization and expression

81-90 — University Level: Very good command of English
Style: Interesting to read
Good discussion of topic rather than mere description
Organization: Logical progression of ideas and paragraphs
Good topic sentences
Mechanics: Excellent punctuation, capitalization and spelling
Grammar: Excellent use of transition words
Well-controlled variation of sentence structure
Use of complex clauses
No article or preposition errors
Vocabulary: Almost no errors in parts of speech
Varied and appropriate use of content and expressive vocabulary

73-80 — Level 6 or Community College with Special English : Good Command of English
Style: Interesting to read
Some discussion in addition to basic description of topic
Organization: Ideas organized in paragraph form with good topic sentences, supporting sentences and conclusion
Mechanics: Good punctuation, capitalization, spelling
Grammar: Good use of transitional expressions
Ability to use all tense forms in appropriate context
Use of modals, gerunds and infinitive constructions
Use of clauses, conditionals and comparisons
Infrequent syntax errors
Vocabulary: Few errors in parts of speech
Use of expressive vocabulary

65-72 — Level 5 : Above Average Command of English
Style Orangization, Mechanics: Emphasizes description with discussion
Identifiable progression of ideas
Use of paragraph form plus indentation
Above average punctuation, capitalization, spelling
Grammar: Good command of tenses
Appropriate use of simple and continuous present, simple past, present perfect, future, conditionals, passive voice
Very few run-on sentences and fragments
Use of conjunctions (and, or, but) and use of subordinators in complex sentences
Very few article errors
Vocabulary: Good command of basic vocabulary
A few errors in parts of speech

57-64 **Level 4 : Average Command of English**

Style, Organization, Mechanics: Use of paragraph form, including indentation, topic sentences, related sentences and conclusion
Correct capitalization and punctuation
Average spelling

Grammar: Agreement of all tenses in paragraph
Subject-verb agreement
Limited use of compound sentences
Some article errors
Some run-on sentences and fragments

Vocabulary: Average command of basic vocabulary
Some errors in parts of speech

48-56 **Level 3 : Below Average Command of English**

Style, Organization, Mechanics: Follows composition directions
Uses paragraph form, including indentation
Some evidence of topic and supporting sentences
Legible handwriting
Basic capitalization, punctuation
Frequent spelling mistakes

Grammar: Limited use of simple present, past and future with be + going to
Some use of adverbials of time and place
Some errors in word order
Some mistakes in tense and agreement
Use of mainly simple sentences

Vocabulary: Below average command of basic vocabulary
Some understanding of parts of speech but frequent errors in choosing correct forms

38-47 **Level 2: Negligible Command of English**

Style, Organization, Mechanics: Almost no knowledge of composition form, i.e. lack of paragraphing, indentation, topic sentences
Handwriting needs improvement
Little use of capitalization
Many punctuation and spelling mistakes
Composition directions not followed
Frequent incomplete sentences

Grammar: Use of simple present only

Vocabulary: Extremely limited

0-37 **Level 1: No Command of English**

Lacks handriting skills, but has knowledge of English alphabet and numbers

A beginner in terms of grammar, mechanics and vocabulary

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